



Technology Improves Warfighters' Logistics Lifeline

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WASHINGTON — Napoleon Bonaparte was as much defeated by inadequate logistics as by the Czar's "scorched earth" policy during the French emperor's invasion of Russia in June 1812.

The 500,000-man French invasion force (half-composed of allied troops) wouldn't be able to live off the land as in past campaigns. The Russians removed most of the food and crops in advance of Napoleon's juggernaut. So, the invasion force ultimately depended on a hundreds-of-miles-long supply line of heavy wagons subject to breakdowns and immobilization due to bad weather and poor roads.

As Napoleon's troops tramped deeper into Russia, inclement weather caused the supply wagons to sink axle-deep in mud. There was scant feed for the beasts of burden that pulled the wagons. Horse and oxen died by the thousands. Sufficient quantities of food, clothing, and other supplies lay far in the rear of Napoleon's spearhead forces.

The man who had once said an army marches on its stomach soon couldn't feed — and properly clothe — his soldiers. Napoleon did reach Moscow in September, but he couldn't hold it — there were no supplies there for his emaciated forces. Reduced by more than half, the French army departed Moscow in October, and melted away during its retreat. The seemingly endless steppes and brutal Russian winter — and suffering and starvation caused by inadequate supplies — combined to defeat the French emperor's bid for continental domination.

Lessons learned from this 19th-century military logistics debacle still carry weight today, said Mark J. O'Konski, the executive director of the U.S. Army Logistics Integration Agency [LIA], who noted that military logistics is the art and science of equipping and supplying armies. Formed in 1995 as a field operating agency following an Office of the Deputy Chief of Staff for Logistics reorganization, LIA assesses lo-

gistics effectiveness; integrates logistics systems and practices; researches, develops, and tests new technology and business practices; manages strategic planning for Army logistics; and improves joint interoperability. LIA is located in Alexandria, Va., and New Cumberland, Pa.

During his Russian campaign, Napoleon forgot his own dictum about supply, said O'Konski.

"If military logistics is done well, it is a significant combat multiplier," he said. "If it is not done well, it can lead to disaster. There is an old saw: 'For want of the nail, a shoe was lost; for want of a shoe, the horse was lost ...'"

"Ultimately, the war was lost, all for want of a nail. Logistics is that important to warfighting," he said.

Today's Army logisticians use technology to solve complex issues, according to O'Konski. During Operations Desert Shield and Storm, the Army sent tons of supplies to the desert, he said, but there was a problem. Way too much time was expended to open shipping containers to discover what was inside them.

Computerized electronic devices now enable logisticians to identify and "track" military shipments made the world over, said O'Konski.

"Things have changed significantly in military logistics [since Desert Storm], and a lot of that change is powered by the Information Revolution," he said. "Today the Army has 'total asset visibility.' That means, that for over 99 percent of all reportable inventory, we know, in real time, where it is and what condition it is in."

O'Konski said technology is helping military logisticians in other ways, too. Bulky technical manuals for military equipment, which once used "masses of paper," he said, are now contained on 130 lightweight,

portable compact disks for everything in the Army's inventory.

"Velocity management" logistics initiatives, led by the U.S. Army Combined Arms Support Command at Fort Lee, Va., greatly reduce resupply response times, order-ship times, and inventory levels, said O'Konski. One of the keys of velocity management, he said, is a distribution-based logistics system, where customers only order what they need, rather than stockpiling mountains of supplies.

"In a sense," he said, "the supply pipeline becomes the supply warehouse."

The Army "has done a tremendous amount to make logistics much more efficient, and hopefully, more effective than it was in the past," said O'Konski. However, he said, there is a caveat to that.

"We're becoming continually more efficient in garrison by using distribution-based logistics. But, when we go to war, we revert back to the old ways, [which is] a supply-based, 'iron mountain,' redundant (more than what is needed) stockage system, so warfighters can have assurance that adequate logistical support will be there."

Circumventing this logistical "old-think" requires enlightened self-discipline, said O'Konski.

"For two-hundred-some years, the Army has used a supply-based logistics concept," he said. "Warfight-

ers are used to having redundant stock; logisticians are used to ensuring they can meet warfighters' requirements.

"Some of these behaviors are based on previous failures of the old supply system. If a soldier requisitioned a part and didn't receive it in a reasonable time, the habit became multiple requisitions of the same item. So, we are working through a lot of that."

Revolution in Military Logistics initiatives under development, to include single stock fund, National Maintenance Management, battlefield distribution doctrine, and the Global Combat Service Support Army system are programs [that] will take Army logistics into the 21st century, said O'Konski.

"These programs will ride on the 'bedrock' of total asset visibility [and] process redesign through velocity management ... making us much more comfortable ... [in relying] on distribution-based logistics during wartime," he said.

The "Little Corporal" would have been intrigued.

Editor's Note: Information about the Russian campaign of 1812 provided by George F. Nafziger's *Napoleon's Invasion of Russia*, and other sources. This information is in the public domain at <http://www.dtic.mil/armylink/news> on the Internet.